East

09/461,537
search results
for paper # 10

	Type	L#	Hits	Search Text	DBS
1	BRS	L1	7447	Fusarium venenatum	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
2	BRS	L2	8	recombinant near2(Fusarium venenatum)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB

# L2	Document ID	kind	Issue date	Title	Author
1	US 6060305 A	USPAT	20000509	Non-toxic, non-toxigenic, non-pathogenic Fusarium expression system	Royer, John C. et al.
2	US 5837847 A	USPAT	19981117	Non-toxic, non-toxigenic, non-pathogenic fusarium expression system and promoters and terminators for use therein	Royer, John C. et al.
3	JP 2001169791 A	JPO	20010626	NONTOXIC, NON-TOXINOGENIC, NON-PATHOGENIC EXPRESSION SYSTEM, AND PROMOTER AND TERMINATOR FOR USING THEREIN	ROYER, JOHN C et al.
4	US 5837847 A	EPO	19981117	Non-toxic, non-toxigenic, non-pathogenic fusarium expression system and promoters and terminators for use therein	ROYER, JOHN C et al.
5	WO 9600787 A1	EPO	19960111	NON-TOXIC, NON-TOXIGENIC, NON-PATHOGENIC FUSARIUM EXPRESSION SYSTEM AND PROMOTERS AND TERMINATORS FOR USE THEREIN	ROYER, JOHN C et al.
6	US 6060305 A	DERWENT	20000509	New non-pathogenic recombinant fusarium host cell, useful for expressing heterologous proteins especially fungal enzymes such as alkaline endoglucanase or alkaline protease	MOYER, D L et al.
7	US 5516679 A	DERWENT	19990713	DNA encoding penicillin V amidohydrolase (PVA) from Fusarium oxysporum - also recombinant vectors and host cells for production of PVA for use in the manufacture of penicillin.	BURNETT, W V et al.
8	US 5837847 A	DERWENT	20010626	Non-toxic, non-toxigenic, non-pathogenic recombinant Fusarium host	MOYER, D L et al.

	Type	L#	Hits	Search Text	DBS
1	BRS	L1	308	fusarium adj graminearum	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
2	BRS	L2	36	ATCC adj "20334"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
3	BRS	L3	30	l1 and l2	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
4	BRS	L4	7456	fusarium	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
5	BRS	L5	0	all idenitfying characteritistic? and l4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
6	BRS	L6	0	all identifying characteritistic? and l4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
7	BRS	L7	0	all identifying characteritistic?	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
8	BRS	L8	0	l4 and characteritistic?	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
9	BRS	L10	0	l4 and id? adj character?	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
10	BRS	L9	139	l4 and character?	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
11	BRS	L11	12	l4 same character?	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
12	BRS	L12	378	non-toxic and l4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
13	BRS	L13	62	non-toxic same l4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
14	BRS	L14	23	non-toxic adj6 l4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB
15	BRS	L15	19	non-toxic adj5 l4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB

# L15	Document ID	kind	Issue date	Title	Author
1	US 6060305 A	USPAT	20000509	Non-toxic, non-toxigenic, non-pathogenic Fusarium expression system	Royer, John C. et al.
2	US 5837847 A	USPAT	19981117	Non-toxic, non-toxigenic, non-pathogenic fusarium expression system and promoters and terminators for use therein	Royer, John C. et al.
3	US 4555485 A	USPAT	19851126	Production of edible protein containing substances	Marsh, Robert A.
4	US 4501765 A	USPAT	19850226	Production of edible protein-containing substances	Towersey, Peter J. et al.
5	US 4466988 A	USPAT	19840821	Edible protein containing substances	et al.
6	US 4294929 A	USPAT	19811013	Production of edible protein substances	Solomons, Gerald L. et al.
7	US 4256839 A	USPAT	19810317	Reactor system such as a fermentation system	Solomons, Gerald L. et al.
8	US PP04347 P	USPAT	19781212	Non-toxic strain of Fusarium graminearum	Solomons, Gerald L. et al.
9	US 4061781 A	USPAT	19771206	Edible protein substances composed of fungal mycellium	Solomons, Gerald L. et al.
10	US 4041189 A	USPAT	19770809	Production of edible protein containing substances	Towersey, Peter John et al.
11	US 3937693 A	USPAT	19760210	Production of edible protein containing substances	Towersey, Peter John et al.
12	US 3937654 A	USPAT	19760210	Production of edible protein substances	Solomons, Gerald L. et al.
13	US 5837847 A	EPO	19981117	Non-toxic, non-toxigenic, non-pathogenic fusarium expression system and promoters and terminators for use therein	ROYER, JOHN C et al.
14	WO 9600787 A1	EPO	19960111	NON-TOXIC, NON-TOXIGENIC, NON-PATHOGENIC FUSARIUM EXPRESSION SYSTEM AND PROMOTERS AND TERMINATORS FOR USE THEREIN	ROYER, JOHN C et al.
15	US 4466988 A	EPO	19840821	Edible protein containing substances	TOWERSEY, PETER J et al.
16	US 5270058 A	DERWENT	19970804	Use of alkali-metal dithionate or alkali metal aldehyde sulphoxylate as systemic microbicide - active against fusarium oxysporum on carnations and shigatoka pests on banana and plantain plantations	KLING, A et al.
17	US 4466988 A	DERWENT	19840821	Edible protein contg. substance for food use - comprises mycelium of Fusarium strain having RNA level below 2 per cent	COCKRAM, G N et al.
18	DE 2406822 A	DERWENT	19740822	Nucleic acid reduction in edible protein - produced from non-toxic fungi imperfecti cultures, by contacting with alkanol-contg. solvents, and incubating cells	
19	BE 767232 A	DERWENT	N/A	Edible proteins produced using non-toxic microorganisms	

Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.
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STN

(FILE 'HOME' ENTERED AT 07:45:54 ON 26 MAR 2002)

INDEX 'ADISALERTS, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 07:46:18 ON 26 MAR 2002

SEA FUSARIUM VENENATUM

10	FILE AGRICOLA
21	FILE BIOSIS
19	FILE BIOTECHABS
19	FILE BIOTECHDS
12	FILE BIOTECHNO
11	FILE CABA
24	FILE CAPLUS
5	FILE CEABA-VTB
8036	FILE DGENE
12	FILE EMBASE
10	FILE ESBIOBASE
3	FILE FROSTI
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7	FILE IFIPAT
12	FILE LIFESCI
12	FILE MEDLINE
10	FILE PASCAL
1	FILE PROMT
16	FILE SCISEARCH
11	FILE TOXCENTER
47	FILE USPATFULL
11	FILE WPIDS
11	FILE WPINDEX

L1 QUE FUSARIUM VENENATUM

FILE 'DGENE, USPATFULL, CAPLUS' ENTERED AT 07:49:47 ON 26 MAR 2002

L2	61	S	FUSARIUM VENENATUM AND RECOMBINANT
L3	0	S	L2 AND PY <=1994
L4	0	S	FUSARIUM VENENATUM AND PY<=1994
L5	1296	S	FUSARIUM AND RECOMBINANT
L6	115	S	L5 AND PY<=1994
L7	216	S	FUSARIUM (10N) RECOMBINANT
L8	14	S	L7 AND PY<=1994
L9	14		DUPLICATE REMOVE L8 (0 DUPLICATES REMOVED)
L10	153	S	FUSARIUM (2N) RECOMBINANT
L11	10	S	L10 AND PY<=1994
L12	372	S	FUSARIUM AND NON-TOXIC
L13	47	S	FUSARIUM (10N) NON-TOXIC
L14	11	S	L13 AND PY<=1994

=> d ibib abs 1-11

L14 ANSWER 1 OF 11 USPATFULL

ACCESSION NUMBER:	85:69620 USPATFULL
TITLE:	Production of edible protein containing substances
INVENTOR(S):	Marsh, Robert A., Haddenham, England
PATENT ASSIGNEE(S):	Ranks Hovis McDougall, PLC, Berkshire, England (non-U.S. corporation)

NUMBER	KIND	DATE

PATENT INFORMATION:	US 4555485	19851126	<--
APPLICATION INFO.:	US 1984-593473	19840326 (6)	

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1983-8162	19830324

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Goldberg, Jerome D.
ASSISTANT EXAMINER: Lipovsky, Joseph A.
LEGAL REPRESENTATIVE: Reising, Ethington, Barnard, Perry & Milton
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
LINE COUNT: 331
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The production of an edible protein-containing substance by continuous fermentation using Fusarium graminearum in a culture medium containing all necessary growth promoting nutrient substances. Oxygen constitutes the limiting nutrient and is present to support cell concentration in the culture without the occurrence of anaerobic growth.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 2 OF 11 USPATFULL
ACCESSION NUMBER: 85:11845 USPATFULL
TITLE: Production of edible protein-containing substances
INVENTOR(S): Towersey, Peter J., High Wycombe, England
Longton, John, Chesham, England
Cockram, Geoffrey N., Remenham Hill, England
PATENT ASSIGNEE(S): Ranks Hovis McDougall Ltd., London, England (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4501765		19850226	<--
APPLICATION INFO.:	US 1982-411805		19820826 (6)	
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1977-813188, filed on 5 Jul 1977, now abandoned which is a continuation of Ser. No. US 1975-584451, filed on 6 Jun 1975, now abandoned which is a continuation of Ser. No. US 1974-440775, filed on 8 Feb 1974, now patented, Pat. No. US 3937693			

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1973-7087	19730213

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Yoncoskie, Robert
LEGAL REPRESENTATIVE: Stevens, Davis, Miller & Mosher
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 4
LINE COUNT: 1104
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Process for reducing the nucleic acid content in the production of an edible protein-containing substance comprising contacting a grown non-toxic microfungus of the class Fungi Imperfecti with a solvent comprising between 40% and 100% (by volume) of a lower alkanol containing up to three carbon atoms and thereafter incubating at a pH between 5 and 9.5 and at a temperature between 30.degree. C. and 80.degree. C. for a time of at least 90 seconds. There is disclosed an edible protein-containing substance of a non-viable edible non-toxic

fungal mycelium of a non-toxic strain of the microfungus. The protein-containing substance is characterized by an essentially white color and improved ease of processing to a form suitable for food use.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 3 OF 11 USPATFULL

ACCESSION NUMBER:	84:46908 USPATFULL			
TITLE:	Edible protein containing substances			
INVENTOR(S):	Towersey, Peter J., Wycombe, England Longton, John, Berkhamsted, England Cockram, Geoffrey N., Exeter, England			
PATENT ASSIGNEE(S):	Ranks Hovis McDougall Limited, London, England (non-U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4466988		19840821	<--
APPLICATION INFO.:	US 1977-809018		19770622 (5)	
DISCLAIMER DATE:	19940309			
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1975-584451, filed on 6 Jun 1975, now abandoned And Ser. No. US 1974-507123, filed on 18 Sep 1974, now patented, Pat. No. US 4041189 , said Ser. No. 584451 which is a continuation of Ser. No. US 1974-440775, filed on 8 Feb 1974, now patented, Pat. No. US 3937693			
	NUMBER		DATE	
PRIORITY INFORMATION:	GB 1973-44708		19730924	
	GB 1975-7087		19751008	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Yoncoskie, Robert A.			
LEGAL REPRESENTATIVE:	Stevens, Davis, Miller & Mosher			
NUMBER OF CLAIMS:	6			
EXEMPLARY CLAIM:	1			
LINE COUNT:	1501			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A fermentation product comprising a nonviable edible proteinaceous mass derived from a **non-toxic** fungal mycelium of a **non-toxic** strain of **Fusarium** preferably selected from the group consisting of **Fusarium** graminearum, Fusarium solani and Fusarium oxysporum possessing a reduced level of RNA of below 4%.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 4 OF 11 USPATFULL

ACCESSION NUMBER:	81:56167 USPATFULL			
TITLE:	Production of edible protein substances			
INVENTOR(S):	Solomons, Gerald L., High Wycombe, England Scammell, Gerald W., Chinnor, England			
PATENT ASSIGNEE(S):	Ranks Hovis McDougall Limited, London, England (non-U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4294929		19811013	<--
APPLICATION INFO.:	US 1977-857591		19771205 (5)	
DISCLAIMER DATE:	19930210			
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1976-711964, filed on 5 Aug			

1976, now patented, Pat. No. US 4061781 which is a continuation of Ser. No. US 1973-414102, filed on 8 Nov 1973, now abandoned which is a continuation of Ser. No. US 1971-140303, filed on 4 May 1971, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1970-23452	19700514
	GB 1970-30584	19700624

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wiseman, Thomas G.
LEGAL REPRESENTATIVE: Stevens, Davis, Miller & Mosher
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1,4
LINE COUNT: 613

AB The invention relates to Fusarium graminearum Schwabe deposited with the Commonwealth Mycological Institute and assigned the number IMI 145425 and variants and mutants thereof, as well as a culture medium containing the same.

L14 ANSWER 5 OF 11 USPATFULL
ACCESSION NUMBER: 81:15084 USPATFULL
TITLE: Reactor system such as a fermentation system
INVENTOR(S): Solomons, Gerald L., Radnage, England
LeGrys, Geoffrey A., Oxon, England
PATENT ASSIGNEE(S): Ranks Hovis McDougall Limited, London, England (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4256839		19810317	<--
APPLICATION INFO.:	US 1978-911125		19780531	(5)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1977-23128	19770601

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Yoncoskie, Robert A.
LEGAL REPRESENTATIVE: McCormick, Paulding & Huber
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 448

AB An apparatus for effecting mass transfer in fermentation reactions is disclosed. The apparatus includes a cylindrical vessel with two impellers located toward the top and bottom of said vessel, one of which is an axial flow impeller and the other is a radial flow impeller. A draft tube of uniform diameter throughout substantially all of its length having an open bottom is located within and coaxial with said cylindrical vessel. The lower impeller being said radial flow impeller is located below the lower end of the draft tube.

L14 ANSWER 6 OF 11 USPATFULL
ACCESSION NUMBER: 78:67373 USPATFULL
TITLE: **Non-toxic** strain of **Fusarium** graminearum
INVENTOR(S): Solomons, Gerald L., High Wycombe, England
Scammell, Gerald W., Chinnor, England

PATENT ASSIGNEE(S): Ranks Hovis McDougall Limited, London, England (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4347		19781212	<--
APPLICATION INFO.:	US 1975-642610		19751219 (5)	

RELATED APPLN. INFO.: Continuation of Ser. No. US 1974-417190, filed on 7 Jan 1974, now abandoned which is a continuation of Ser. No. US 1971-140303, filed on 4 May 1971, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1970-23452	19700514
	GB 1970-30584	19700624

DOCUMENT TYPE: Plant
FILE SEGMENT: Granted
PRIMARY EXAMINER: Bagwill, Robert E.
LEGAL REPRESENTATIVE: Stevens, Davis, Miller & Mosher
NUMBER OF CLAIMS: 1
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 331

AB A **non-toxic**, edible strain of **Fusarium** graminearum fungus. The fungal mycelium is a nutritious material having a high net protein utilization value.

L14 ANSWER 7 OF 11 USPATFULL
ACCESSION NUMBER: 77:64033 USPATFULL
TITLE: Edible protein substances composed of fungal mycellium
INVENTOR(S): Solomons, Gerald L., High Wycombe, England
Scammell, Gerald W., Chinnor, England
PATENT ASSIGNEE(S): Ranks Hovis McDougall Limited, London, England (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4061781		19771206	<--
APPLICATION INFO.:	US 1976-711964		19760805 (5)	

RELATED APPLN. INFO.: Continuation of Ser. No. US 1973-414102, filed on 8 Nov 1973, now abandoned which is a continuation of Ser. No. US 1971-140303, filed on 4 May 1971, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1970-23452	19700514
	GB 1970-30584	19700624

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Tanenholtz, Alvin E.
ASSISTANT EXAMINER: Wiseman, Thomas G.
LEGAL REPRESENTATIVE: Stevens, Davis, Miller & Mosher
NUMBER OF CLAIMS: 17
EXEMPLARY CLAIM: 1
LINE COUNT: 620
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An edible protein-containing substance is produced by incubating and proliferating, under aerobic conditions, a nontoxic strain of the genus Fusarium or a variant or mutant thereof, in a culture medium containing essential growth-promoting nutrient substances, of which carbon in the form of assimilable carbohydrate constitutes the limited substrate in

proliferation, and separating the proliferated organism comprising the edible protein-containing substance. Novel strains and variants of Fusarium graminearum are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 8 OF 11 USPATFULL

ACCESSION NUMBER:	77:41991 USPATFULL			
TITLE:	Production of edible protein containing substances			
INVENTOR(S):	Towersey, Peter John, High Wycombe, England Longton, John, Chesham, England Cockram, Geoffrey Norman, Henley-on-Thames, England			
PATENT ASSIGNEE(S):	Ranks Hovis McDougall Limited, London, England (non-U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 4041189		19770809	<--
APPLICATION INFO.:	US 1974-507123		19740918	(5)
	NUMBER		DATE	
PRIORITY INFORMATION:	GB 1973-44708		19730924	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Jones, Raymond N.			
ASSISTANT EXAMINER:	Penland, R. B.			
LEGAL REPRESENTATIVE:	Stevens, Davis, Miller & Mosher			
NUMBER OF CLAIMS:	8			
EXEMPLARY CLAIM:	7			
LINE COUNT:	550			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for reducing the nucleic acid content in the production of an edible protein-containing substance which comprises maintaining a grown **non-toxic** microfungus of the class Fungi Imperfecti, preferably a strain of **Fusarium** graminearum Schwabe, in a suspension at a pH between 4.7 and 7.0 and at a temperature between 55.degree. and 72.degree. C. for a time of at least 60 seconds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 9 OF 11 USPATFULL

ACCESSION NUMBER:	76:7457 USPATFULL			
TITLE:	Production of edible protein containing substances			
INVENTOR(S):	Towersey, Peter John, High Wycombe, England Longton, John, Chesham, England Cockram, Geoffrey Norman, Henley on Thames, England			
PATENT ASSIGNEE(S):	Ranks Hovis McDougall Limited, London, England (non-U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 3937693		19760210	<--
APPLICATION INFO.:	US 1974-440775		19740208	(5)
	NUMBER		DATE	
PRIORITY INFORMATION:	GB 1973-7087		19730213	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Monacell, A. Louis			
ASSISTANT EXAMINER:	Yoncoskie, R. A.			

LEGAL REPRESENTATIVE: Stevens, Davis, Miller & Mosher
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
LINE COUNT: 549
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Process for reducing the nucleic acid content in the production of an edible protein-containing substance comprising contacting a grown non-toxic microfungus of the class Fungi Imperfecti with a solvent comprising between 40% and 100% (by volume) of a lower alkanol containing up to three carbon atoms and thereafter incubating at a pH between 5 and 9.5 and at a temperature between 30.degree.C. and 80.degree.C. for a time of at least 90 seconds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 10 OF 11 USPATFULL
ACCESSION NUMBER: 76:7418 USPATFULL
TITLE: Production of edible protein substances
INVENTOR(S): Solomons, Gerald L., High Wycombe, England
Scammell, Gerald W., Chinnor, England
PATENT ASSIGNEE(S): Ranks Hovis McDougall Limited, London, England (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 3937654		19760210	<--
APPLICATION INFO.:	US 1975-599026		19750725 (5)	

RELATED APPLN. INFO.: Continuation of Ser. No. US 1974-459021, filed on 8 Apr 1974, now abandoned which is a continuation of Ser. No. US 1971-140303, filed on 4 May 1971, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1970-23452	19700514
	GB 1970-30584	19700624

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Monacell, A. Louis
ASSISTANT EXAMINER: Wiseman, Thomas G.
LEGAL REPRESENTATIVE: Stevens, Davis, Miller & Mosher
NUMBER OF CLAIMS: 25
EXEMPLARY CLAIM: 1,17,20
LINE COUNT: 683
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Process for the production of an edible protein-containing substance which comprises incubating and proliferating, under aerobic conditions, a **non-toxic** strain of the gensus **Fusarium** or a variant or mutant thereof, in a culture medium containing essential growth-promoting nutrient substances, of which carbon in the form of assimilable carbohydrate constitutes the limiting substrate in proliferation, and separating the proliferated organism comprising the edible protein-containing substance. Novel strains and variants of Fusarium graminearum are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L14 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:468094 CAPLUS
DOCUMENT NUMBER: 115:68094
TITLE: Metabolic products of Fusarium acuminatum: acuminatopyrone and chlamydosporol
AUTHOR(S): Grove, John Frederick; Hitchcock, Peter B.

CORPORATE SOURCE: Sch. Mol. Sci., Univ. Sussex, Brighton/Sussex, BN1 9QJ, UK
SOURCE: J. Chem. Soc., Perkin Trans. 1 (**1991**), (5), 997-9
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two metabolic products of a **non-toxic** strain of **Fusarium** acuminatum are shown to be 4-methoxy-5,6-dimethyl-2H-pyrano[2,3-b]pyridin-2-one (acuminatopyrone) and trans-7,8-dihydro-7-hydroxy-4-methoxy-7,8-dimethyl-2H,5H-pyrano[4,3-b]pyran-2-one (chlamydosporol).

=> s quorn
L7 43 QUORN

=> s l7 and py<=1994
1 FILES SEARCHED...
L8 12 L7 AND PY<=1994

=> d ibib abs 1-12

L8 ANSWER 1 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1995:33567 BIOSIS
DOCUMENT NUMBER: PREV199598047867
TITLE: Use of a series of chemostat cultures to isolate 'improved' variants of the **Quorn** mycoprotein fungus, Fusarium graminearum A3/5.
AUTHOR(S): Wiebe, Marilyn G. (1); Robson, Geoffrey D.; Oliver, Stephen G.; Trinci, Anthony P. J.
CORPORATE SOURCE: (1) Sch. Biol. Sci., 1.800 Stopford Build., Univ. Manchester, Manchester M13 9PT UK
SOURCE: Microbiology (Reading), (1994) Vol. 140, No. 11, pp. 3015-3021.
ISSN: 1350-0872.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Variants (designated A23-S and A24-S) of the **Quorn** myco-protein fungus, Fusarium graminearum A3/5 were isolated from a series of glucose-limited cultures grown at a dilution rate of 0.18 h-1 for a combined total of 109 d. These variants had unchanged mycelial morphologies but, when grown in mixed culture with the parental strain (A3/5) in glucose-limited chemostat culture at 0.18 h-1, A23-S and A24-S had selection coefficients of 0.013 and 0.017 h-1, respectively, and supplanted A3/5. When a monoculture of A23-S was grown in a glucose-limited culture at a dilution rate of 0.18 h-1, the appearance of highly branched (so-called colonial) mutants was delayed compared with their appearance in chemostat cultures of the parental strain. Furthermore, when a monoculture of A24-S was grown in glucose-limited culture at 0.18 h-1, the appearance of colonial mutants was delayed even further. Thus, it is possible to isolate advantageous (relative to A3/5) variants of F. graminearum A3/5 which have unchanged mycelial morphologies, but in which the appearance of colonial mutants is delayed.

L8 ANSWER 2 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1994:497942 BIOSIS
DOCUMENT NUMBER: PREV199497510942
TITLE: Evolution of the **Quorn** myco-protein fungus, Fusarium graminearum A3/5.
AUTHOR(S): Trinci, Anthony P. J.
CORPORATE SOURCE: Sch. Biological Sci., 1.800 Stopford Build., Univ. Manchester, Manchester M13 9PT UK
SOURCE: Microbiology (Reading), (1994) Vol. 140, No. 9, pp. 2181-2188.
DOCUMENT TYPE: Article
LANGUAGE: English

L8 ANSWER 3 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1993:413088 BIOSIS
DOCUMENT NUMBER: PREV199396078813
TITLE: The apparent digestibility of energy, nitrogen and fibre and the biological value of protein in low- and high-fibre wheat breads.
AUTHOR(S): Leenaars, M.; Moughan, P. J. (1)
CORPORATE SOURCE: (1) Dep. Animal Science, Massey Univ., Palmerston North New

Zealand
SOURCE: Plant Foods for Human Nutrition (Dordrecht), (1993) Vol. 44, No. 2, pp. 187-194.
ISSN: 0921-9668.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Sixteen 15 kg liveweight entire-male pigs were given either a low-fibre (1.21 g/100 g Neutral detergent fibre, NDF) or a high-fibre (6.38 g 100 g, NDF) wheat bread as their sole source of dietary protein, in a conventional 21-day metabolism study. A glucose/oil supplement which was assumed to be completely absorbed was given with the bread to ensure a high ratio of dietary energy to protein, to allow measurement of biological value (BV). The apparent faecal digestibility of gross energy was significantly (p lt 0.001) lower (7.4% units) for pigs given the high-fibre bread as was the apparent digestibility of NDF (24% units lower). The apparent faecal digestibility of total nitrogen was also significantly (P lt 0.001) lower for the animals fed the high-fibre bread, but there were no significant differences between the breads for the BV of their protein. The overall mean BV for the breads was 46%. The results indicate a significantly lower digestibility of nutrients and gross energy in breads containing appreciable quantities of wheat bran fibre.

L8 ANSWER 4 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1993:413087 BIOSIS
DOCUMENT NUMBER: PREV199396078812
TITLE: Influence of a high-fibre food (myco-protein) on appetite: Effects on satiation (within meals) and satiety (following meals.
AUTHOR(S): Burley, V. J. (1); Paul, A. W.; Blundell, J. E.
CORPORATE SOURCE: (1) BioPsychol. Group, Dep. Psychol., Univ. Leeds, Leeds LS2 9JT UK
SOURCE: European Journal of Clinical Nutrition, (1993) Vol. 47, No. 6, pp. 409-418.
ISSN: 0954-3007.
DOCUMENT TYPE: Article
LANGUAGE: English
AB The effect of meals containing **Quorn** myco-protein or chicken upon satiety and satiation were investigated in 18 lean, healthy male and female subjects using a within-subjects design. Both meals were designed to be similar in every respect with the exception of dietary fibre content (11 vs 3 g). Following consumption of a lunch containing **Quorn** myco-protein (high fibre) subsequent energy intake at an evening ad libitum test meal was reduced by 18% (P lt 0.001) when compared with the response to an isocaloric chicken-containing (low-fibre) lunch. Using the Universal Eating Monitor (a device which weighs continuously the portion of food being consumed) the within-meal effects of a lunch containing **Quorn** or chicken were investigated. This study showed that during consumption, **Quorn** elicited similar eating behaviour when compared to a chicken meal. Amount selected, overall eating rate and the decrease in motivation to eat did not differ between the **Quorn** and control conditions. These two studies show that **Quorn** (high-protein, dietary fibre combination) has a strong impact on late satiety, but is similar in its effects during and immediately after consumption. These data have clear implications for the use of **Quorn** myco-protein for the control of appetite and body weight.

L8 ANSWER 5 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1993:405295 BIOSIS
DOCUMENT NUMBER: PREV199345064120
TITLE: **Quorn** myco-protein: The development of a new food and its contribution to the diet.
AUTHOR(S): Sharp, T.

CORPORATE SOURCE: Marlow Foods Ltd., Marlow, Bucks. UK
SOURCE: Van der Heij, D. G. [Editor]; Loewik, M. R. H. [Editor]; Ockhuizen, T. [Editor]. (1993) pp. 149-154. Food and nutrition policy in Europe.
Publisher: PUDOC (Centre for Agricultural Publishing and Documentation) Centre for Agricultural Publishin, P. O. Box 4, Marijkeweg 17, 6700 AA Wageningen, Netherlands.
Meeting Info.: Second European Conference The Hague, Netherlands April 21-24, 1992
ISBN: 90-220-1084-8.
DOCUMENT TYPE: Article
LANGUAGE: English

L8 ANSWER 6 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1993:338696 BIOSIS
DOCUMENT NUMBER: PREV199396035696
TITLE: Investigation of possible adverse allergic reactions to mycoprotein ("**Quorn**.
AUTHOR(S): Tee, R. D. (1); Gordon, D. J.; Welch, J. A.; Taylor, A. J. Newman
CORPORATE SOURCE: (1) Dep. Occupational Environmental Med., National Heart Lung Inst., Royal Brompton Hosp., London SW3 6LR
SOURCE: Clinical and Experimental Allergy, (1993) Vol. 23, No. 4, pp. 257-260.
ISSN: 0954-7894.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Mycoprotein ('**Quorn**') is a food produced for human consumption from Fusarium graminearum. Crossreactivity studies showed that mycoprotein shared multiple common allergenic determinants with Aspergillus fumigatus and Cladosporium herbarum and some with Alternaria alternata. There is, therefore, a potential for mould allergic patients to react adversely to inhaled or ingested mycoprotein. Mycoprotein RAST screening of mycoprotein production workers was made during a 2 year period. Two of the production workers had specific RAST binding gtoreq 2% but none reported symptoms. Two of 10 patients referred to hospital following vomiting and diarrhoea after ingestion of mycoprotein had a mycoprotein skin-prick test weal gtoreq 2 mm but none had a significantly raised RAST. These largely negative results are important and reassuring because consumption of the product in the U.K. is now widespread and increasing.

L8 ANSWER 7 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1992:87862 BIOSIS
DOCUMENT NUMBER: BR42:40137
TITLE: THE ROLE OF NOVEL FOODS IN NUTRITION.
AUTHOR(S): JONAS D A
CORPORATE SOURCE: FOOD SAFETY DIRECTORATE, MINISTRY AGRIC. FISHERIES FOOD, 17 SMITH SQUARE, LONDON SW1P 3JR, UK.
SOURCE: SIXTH EUROPEAN NUTRITION CONFERENCE ON NUTRITIONAL SCIENCES: NEW DEVELOPMENTS OF CONSUMER CONCERN, ATHENS, GREECE, MAY 25-28, 1991. EUR J CLIN NUTR, (1991) 45 (SUPPL 2), 161-164.
CODEN: EJCNEQ. ISSN: 0954-3007.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L8 ANSWER 8 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1991:439772 BIOSIS
DOCUMENT NUMBER: BR41:77507
TITLE: **QUORN** MYCOPROTEIN.
AUTHOR(S): TRINCI A P J

CORPORATE SOURCE: DEP. CELL AND STRUCTURAL BIOL., MED. SCH., STOPFORD BUILD., UNIV., MANCHESTER M13 9PL.
SOURCE: Mycologist (Cambridge), (1991) 5 (3), 106-109.
CODEN: MYCOEI.
FILE SEGMENT: BR; OLD
LANGUAGE: English

L8 ANSWER 9 OF 12 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1989:118930 BIOSIS
DOCUMENT NUMBER: BR36:64346
TITLE: THE DEVELOPMENT OF A NEW FOOD.
AUTHOR(S): EDELMAN J
CORPORATE SOURCE: RANKS HOVIS MCDOUGALL PLC, PO BOX 127, LANCASTER HOUSE, LINCOLN RD., HIGH WYCOMBE, BUCKINGHAMSHIRE HP12 3RL, UK.
SOURCE: BIOLOGICAL COUNCIL'S SYMPOSIUM ON HAZARDS OF BIOTECHNOLOGY: REAL OR IMAGINARY, LONDON, ENGLAND, UK, DECEMBER 14-15, 1987. J CHEM TECHNOL BIOTECHNOL, (1988) 43 (4), 279-284.
CODEN: JCTBED. ISSN: 0268-2575.
FILE SEGMENT: BR; OLD
LANGUAGE: English

L8 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:230202 CAPLUS
TITLE: Use of a series of chemostat cultures to isolate 'improved' variants of the **Quorn** myco-protein fungus, Fusarium graminearum A3/5
AUTHOR(S): Wiebe, Marilyn G.; Robson, Geoffrey D.; Oliver, Stephen G.; Trinci, Anthony P. J.
CORPORATE SOURCE: Sch. Biological Sci., Univ. Manchester, Manchester, M13 9PT, UK
SOURCE: Microbiology (Reading, U. K.) (**1994**), 140(11), 3015-3021
CODEN: MROBEO; ISSN: 1350-0872
PUBLISHER: Society for General Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Variants (designated A23-S and A24-S) of the **Quorn**.RTM. myco-protein fungus, Fusarium graminearum A3/5 were isolated from a series of glucose-limited cultures grown at a diln. rate of 0.18 h-1 for a combined total of 109 d. These variatns had unchanged mycelial morphologies but, when grown in mixed culture with the parental strain (A3/5) in glucose-limited chemostat culture at 0.18 h-1, A23-S and A24-S had selection coeffs. of 0.013 and 0.017 h-1, resp., and supplanted A3/5. When a monoculture of A23-S was grown in a glucose-limited culture at a diln. rate of 0.18 h-1, the appearance of highly branched (so-called colonial) mutants was delayed compared with their appearance in chemostat cultures of the parental strain. Furthermore, when a monoculture of A24-S was grown in glucose-limited culture at 0.18 h-1, the appearance of colonial mutants was delayed even further. Thus, it is possible to isolate advantageous (relative to A3/5) variants of F. graminearum A3/5 which have unchanged mycelial morphologies, but in which the appearance of colonial mutants is delayed.

L8 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:653965 CAPLUS
DOCUMENT NUMBER: 121:253965
TITLE: Evolution of the **Quorn** myco-protein fungus, Fusarium graminearum A3/5
AUTHOR(S): Trinci, Anthony P. J.
CORPORATE SOURCE: Sch. Biol. SCi., Univ. Manchester, Manchester, M13 9PT, UK
SOURCE: Microbiology (Reading, U. K.) (**1994**),

140(9), 2181-8
CODEN: MROBEO; ISSN: 1350-0872
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 30 refs. discussing the use of **Quorn** myco-protein fungus as a protein rich food, as presented for the 1994 Marjory Stephenson Prize Lecture.

L8 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:406184 CAPLUS
DOCUMENT NUMBER: 117:6184
TITLE: Myco-protein: a twenty-year overnight success story
AUTHOR(S): Trinci, Anthony P. J.
CORPORATE SOURCE: Sch. Biol. Sci., Univ. Manchester, Manchester, M13 9PT, UK
SOURCE: Mycol. Res. (**1992**), 96(1), 1-13
CODEN: MYCRER; ISSN: 0953-7562
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 50 refs. Fusarium graminearum for prodn. of myco-protein is currently grown on a glucose-ammonia-biotin-mineral salts medium in a 40 m3 air-lift fermenter. The resulting biomass is RNA reduced, harvested, texturized and sold for human consumption, either directly as a food or as meat or poultry alternatives in pre-prepd. meals. Originally intended in the 1960s to combat the world's flagging supply of protein foods, **Quorn** myco-protein was marketed in the middle 1980s as a low-calorie, high-fiber, food contg. no cholesterol or animal fats. The continuous flow culture system currently used for myco-protein prodn. is described, together with details of the evolution of the fungus in prolonged culture.

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=> d his

     (FILE 'HOME' ENTERED AT 14:01:05 ON 27 MAR 2002)

     FILE 'CAPLUS, BIOSIS, GENBANK' ENTERED AT 14:01:43 ON 27 MAR 2002
L1            58 S NON-TOXIC (5N) FUNG?
L2            18 S NON-TOXIC (5N) FUSARIUM
L3             1 S L2 AND PY<=1994
L4         18101 S FUSARIUM (W) GRAMINEARUM
L5             2 S L4 AND (NON-TOXIC OR NON(W)TOXIC)
L6            34 S L1 AND PY<=1994
L7            37 S NON-TOXIC (S) FUSARI?
L8            17 S L7 AND PY<=1994

=> s non-toxic (8N) fusari?
L9          19 NON-TOXIC (8N) FUSARI?

=> s l9 and py<=1994
   2 FILES SEARCHED...
L10           2 L9 AND PY<=1994

=> d l8 ibib abs 1-17

L8   ANSWER 1 OF 17  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1994:127606  CAPLUS
DOCUMENT NUMBER:          120:127606
TITLE:                    An alternative approach for the chemical control of
                          Fusarium wilt of tomato
AUTHOR(S):                Mandal, N.C.; Sinha, A.K.
CORPORATE SOURCE:         Dep. Plant Pathol., Bidhan Chandra Krishi
                          Viswavidyalaya, Kalyani, 741235, India
SOURCE:                   Indian Phytopathol. (1992), 45(2), 194-8
                          CODEN: IPHYAU; ISSN: 0367-973X
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   Effectiveness of 19 non-conventional, mostly non-toxic
     chems. in wet seed treatment, used at (10-4 to 10-2M) in controlling
     Fusarium wilt of tomato has been tested in potted tomato plants
     (cv. Patharkuchi) inoculated with Fusarium oxysporum f. sp.
     lycopersici at the age of 3 wk.  While most of these compds. could reduce
     wilt symptoms appreciably, cupric chloride, ferric chloride, zinc
     chloride, manganese sulfate, mercuric sulfate, L-cysteine, IAA and
     DL-methionine showed very strong protective effect.  These reduced leaf
     symptoms by 52 to 71%, prevented mortality completely and also limited
     vascular colonization by the pathogen.  Most of the test compds. showed
     little or no in-vitro fungitoxicity at their effective concns. and
     stronger protection was often achieved at lower than higher concn.  It has
     been concluded, therefore, that these non-conventional chems. act in plant
     disease control not so much by any direct toxic action but by inducing
     resistance in susceptible tomato plants, mediated through host tissue
     conditioning.

L8   ANSWER 2 OF 17  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1991:468094  CAPLUS
DOCUMENT NUMBER:          115:68094
TITLE:                    Metabolic products of Fusarium acuminatum:
                          acuminatopyrone and chlamydosporol
AUTHOR(S):                Grove, John Frederick; Hitchcock, Peter B.
CORPORATE SOURCE:         Sch. Mol. Sci., Univ. Sussex, Brighton/Sussex, BN1
                          9QJ, UK
SOURCE:                   J. Chem. Soc., Perkin Trans. 1 (1991), (5),
                          997-9
                          CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   Two metabolic products of a non-toxic strain of
     Fusarium acuminatum are shown to be 4-methoxy-5,6-dimethyl-2H-
     pyrano[2,3-b]pyridin-2-one (acuminatopyrone) and trans-7,8-dihydro-7-
     hydroxy-4-methoxy-7,8-dimethyl-2H,5H-pyrano[4,3-b]pyran-2-one
     (chlamydosporol).

L8   ANSWER 3 OF 17  BIOSIS  COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER:    1995:527507  BIOSIS
DOCUMENT NUMBER:     PREV199598541807
TITLE:               Improvement in nutritional value of guar meal by fungal
                     fermentation.
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AUTHOR(S): Nagra, S. S. (1); Sethi, R. P. (1); Chawla, J. S. (1); Chopra, A. K.
CORPORATE SOURCE: (1) Dep. Animal Nutrition Forages, Punjab Agric. Univ., Ludhiana-141 004 India
SOURCE: Indian Journal of Animal Nutrition, (1994) Vol. 11, No. 1, pp. 7-11.
ISSN: 0970-3209.
DOCUMENT TYPE: Article
LANGUAGE: English

AB Toasted guar meal was fermented by solid substrate fermentation, using two **non-toxic** fungi viz. Aspergillus niger (AN) and **Fusarium** sp. (FS). Fermentation increased the CP content while it lowered the contents of crude fibre, NFE and available carbohydrates. The methionine, lysine and available lysine content increased after fermentation by 26-30, 16-20 and 23-28%, respectively. Trypsin inhibitor activity in toasted guar meal (278 units/g) was decreased to 94 units/g due to autoclaving of the meal and was further lowered to 23-24 units/g through fermentation. A significant decrease in tannin and gum content (75 and 50%, respectively) was also achieved by fermentation. The net protein utilization (NPU) value was significantly higher in fermented meal than toasted or autoclaved meal for chicken.

L8 ANSWER 4 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1995:128691 BIOSIS
DOCUMENT NUMBER: PREV199598142991
TITLE: Epidemiology of invasive fungal infections in bone marrow transplantation.
AUTHOR(S): De Bock, R.
SOURCE: Bone Marrow Transplantation, (1994) Vol. 14, No. SUPPL. 5, pp. S1-S2.
ISSN: 0268-3369.
DOCUMENT TYPE: Article
LANGUAGE: English

AB Infections and graft-versus-host disease are the major causes of morbidity and mortality in bone marrow transplantation (BMT). Bacterial infections can nowadays be treated effectively in most instances. The prophylactic and therapeutic armamentarium for viral infections is improving. Fungal infections on the contrary remain a major obstacle for successful outcome in the transplant situation. Invasive fungal infections are mainly caused by Candida and Aspergillus spp. and more seldom by Mucor, Trichosporon and **Fusarium**. Invasive fungal infections are notoriously difficult to diagnose early and effective **non-toxic** treatments are still out of reach. Prophylaxis for Candida albicans has become more effective with new triazoles but for species other than albicans and for Aspergillus spp. prophylaxis still remains a major problem. Better treatment modalities, more effective prophylaxis and better knowledge of risk factors are urgently needed. The recently created Invasive Fungal Infections Cooperative Group of the EORTC chaired by Professor F. Meunier runs different surveys to investigate the incidence and nature of invasive fungal infections in cancer patients and in BMT. The group runs different clinical trials on the prophylaxis and treatment of invasive fungal infections.

L8 ANSWER 5 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1994:122465 BIOSIS
DOCUMENT NUMBER: PREV199497135465
TITLE: Toxigenicity of Fusarium species and subspecies in section Gibbosum from different regions of Australia.
AUTHOR(S): Wing, N.; Bryden, W. L.; Lauren, D. R.; Burgess, L. W. (1)
CORPORATE SOURCE: (1) Fusarium Res. Lab., Dep. Crop Sci., Univ. Sydney, NSW 2006 Australia
SOURCE: Mycological Research, (1994) Vol. 97, No. 12, pp. 1441-1446.
ISSN: 0953-7562.
DOCUMENT TYPE: Article
LANGUAGE: English

AB The toxicity of cultures of **Fusarium** species and subspecies in section Gibbosum from soils from locations in various climatic regions of Australia was determined using a chick bioassay. Most cultures of F. compactum and F. acuminatum subsp. armeniacum were found to be highly toxic irrespective of geographical origin. The other species and subspecies in section Gibbosum viz; F. acuminatum subsp. acuminatum, F. equiseti, F. scirpi, and F. longipes, were shown to be **non-toxic** or of low toxicity. Selected culture extracts of F. compactum, F. acuminatum armeniacum and F. acuminatum acuminatum were analysed by gas chromatography after clean up and hydrolysis for the four main trichothecene families, namely; nivalenol (NIV, deoxynivalenol (DON),

scirpentriol (Sctol) and T-2 tetraol (T-2tol). Some cultures of F. compactum were found to produce high levels of T-2tol derivatives while others produced high levels of Sctol derivatives. Cultures of F. acuminatum armeniacum produced high levels of T-2tol derivatives and trace levels of Sctol derivatives. In contrast, only trace levels of T-2tol and Sctol were detected in hydrolysed culture extracts of F. acuminatum acuminatum. GC/MS analysis of individual trichothecene derivatives in culture extracts of F. compactum indicated that the main trichothecenes produced were either acuminatin or diacetoxyscirpenol respectively, while F. acuminatum armeniacum was found to produce mainly T-2 toxin and neosolaniol.

L8 ANSWER 6 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1994:36499 BIOSIS
DOCUMENT NUMBER: PREV199497049499
TITLE: Two new modified trichothecenes from Fusarium sporotrichioides.
AUTHOR(S): Fort, Diana M. (1); Barnes, Charles L.; Tempesta, Michael S. (1); Casper, Howard H.; Bekele, Eshetu; Rottinghaus, Audrey A.; Rottinghaus, George E.
CORPORATE SOURCE: (1) Shaman Pharm., 213 East Grand Ave., South San Francisco, CA 94080-4812 USA
SOURCE: Journal of Natural Products (Lloydia), (1993) Vol. 56, No. 11, pp. 1890-1897.
ISSN: 0163-3864.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Two new modified trichothecenes, 2-deoxy-11-epi-3-alpha-hydroxysambucoin (1) and 2-deoxy-11-epi-12-acetyl-3-alpha-hydroxysambucoin (2), were isolated from **Fusarium** sporotrichioides culture. This is the first report of modified trichothecenes where the two six membered rings are cis-fused. Structures were elucidated using gc-ms, nmr, X-ray crystallography, and other spectroscopic techniques. Compounds 1 and 2 were screened for relative cytotoxicity in cultured baby hamster kidney (BHK-21) cells and found to be **non-toxic**.

L8 ANSWER 7 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1993:485035 BIOSIS
DOCUMENT NUMBER: PREV199396118635
TITLE: Mycoflora and natural occurrence of mycotoxins in tobacco from cigarettes in Egypt.
AUTHOR(S): El-Maghraby, O. M. O.; Abdel-Sater, M. A. (1)
CORPORATE SOURCE: (1) Botany Dep. Fac. Sci., Assiut Univ., Assiut Egypt
SOURCE: Zentralblatt fuer Mikrobiologie, (1993) Vol. 148, No. 4, pp. 253-264.
ISSN: 0232-4393.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English; German
AB Forty-two species and 4 varieties belonging to 21 genera were collected from 40 tobacco samples on glucose- and cellulose-Czapek's agar at 28 degree C and 45 degree C. The most common mesophiles (at 28 degree C) in tobacco on the two types of media were: Aspergillus flavus, A. flavus var. columnaris, A. fumigatus, A. niger, Penicillium chrysogenum and P. funiculosum. Two samples were heavily contaminated with members of **Fusarium** (F. moniliforme, F. oxysporum, F. solani). Some fungi were encountered only on plates of cellulose agar as Chaetomium globosum, Stachybotrys atra var. microspora and S. chartarum. At 45 degree C the most prevalent fungus was A. fumigatus. Truly thermophiles were also collected: Humicola grisea var. thermoidae, Rhizomucor pusillus and Thermoascus aurantiacus. Based on biological assays (brine shrimp larvae (Artemia sativa L.) and Bacillus megatherium test) and chemical analysis of chloroform extraction of tobacco (TLC and UV spectrophotometric), four samples (out of 40) had toxicity and four compounds of mycotoxins were detected namely, aflatoxins B-1 & B-2 (2 samples; 15.5 and 20.7 mu-g/kg), zearalenone (1 sample, 5.5 mu-g) and T-2 toxin (1 sample, 2.8 mu-g). For studying the tracing of aflatoxins in smoking cigarettes, three doses (10, 20 and 50 mu-g) of aflatoxins B-1 and B-2 (w/w, 1:1) were injected each in ten cigarettes. All extracts of cigarette smoke proved to be **non -toxic** and mycotoxins not detected. However, aflatoxins were detected in topping filter (2.8, 3.5 and 8.8 mu-g/the three doses, respectively).

L8 ANSWER 8 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1992:430241 BIOSIS
DOCUMENT NUMBER: BA94:82366
TITLE: INTRAOCULAR PENETRATION OF ANTIFUNGAL AGENTS AND

THERAPEUTIC CONSEQUENCES IN OCULAR FUNGAL INFECTIONS.
AUTHOR(S): MALECAZE F; LINAS M D; GAZAGNE C; PAGOT V; MATHIS A; SEGUELA J P
CORPORATE SOURCE: SERVICE PARASITOL.-MYCOL., CHU RANGUEIL, 1 AVE. J. POULHES, F 31054 TOULOUSE CEDEX, FR.
SOURCE: J MYCOL MED, (1992) 2 (2), 73-76.
CODEN: JMYME5.
FILE SEGMENT: BA; OLD
LANGUAGE: French

AB Intraocular penetration of antifungal agents is a major objective in the treatment of ocular mycoses, for both keratomycoses and endophthalmitis. Keratomycoses are due to a wide variety of yeasts or filamentous fungi (especially Aspergillus, Candida and **Fusarium**). Occurring readily after corneal wounding, among contact lens wearers, or during corticosteroid therapy, they induce a corneal ulceration which can be superficial or deep. Local treatment (eye-drop, sub-conjunctival injection, or collagen shield contact lens) as well as systemic treatment must permit a good intracorneal penetration. The primary treatment remains topical amphotericin B (0.15 p. 100), efficient and **non toxic**. 5-fluorocytosine can be associated, in cases due to Candida, because of a synergy. Ketoconazole and new azole compounds (fluconazole and itraconazole) are efficient but their use is not yet well defined. Sulphadiazine seems to be efficient in cases due to Aspergillus and **Fusarium**, and represents an alternative in these cases. Treatment must be based on a mycologic proof and has to last for a long time. Finally, corticotherapy is counter-indicated. Fungal endophthalmitis, due most frequently to Candida, appears as isolate chorioretinitis or chorioretinitis with diffuse cloudy vitreous. A good intraocular penetation in the chorioretina and in the vitreous is necessary. Eye drops and sub-conjunctival injections did not comply to this requirement. Systemic administration, through haematoocular barrier, and intravitreal administration, through haematoocular barrier, and intravitreal administration are the two satisfying ways. Intravenous amphotericin B has a good efficiency despite its toxicity which can lead to stop the treatment. Intravitreal administration is also possible without toxicity. 5-fluorocytosine can be used, combined with amphotericin B, because of a synergy. Ketoconazole and fluconazole have a different intraocular penetration but a comparable efficiency, nevertheless less good than amphotericin B. Chorioretinitis treatment is medical. At first, amphotericin B, combined or not with 5-fluorocytosine, has to be used. Imidazole compounds constitute a relay therapy in case of amphotericin B toxicity. Chorioretinitis with a diffuse cloudy vitreous requires both a medical treatment and a vitrectomy, always associated with intravitreal amphotericin B. In conclusion, the treatment of ocular fungal infections requires a good intraocular diffusion of the drugs. New antifungal drugs and new galenic forms may constitute an interesitng therapeutical approach.

L8 ANSWER 9 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1991:317402 BIOSIS
DOCUMENT NUMBER: BA92:27917
TITLE: FUNGITOXICITY OF FOUR OXIDIAZOLE THIONE DERIVATIVES TOWARDS FUNGI DETERIORATING MOONG PHASEOLUS-AUREUS ROXB. SEEDS.
AUTHOR(S): RATHORE A; MISRA N
CORPORATE SOURCE: BOTANY DEP., UNIV. GORAKHPUR, GORAKHPUR-273 001, INDIA.
SOURCE: J FOOD SCI TECHNOL, (1991) 28 (2), 128-130.
CODEN: JFSTAB. ISSN: 0022-1155.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Four new organic compounds viz., 3-(3,4-Dimethyl amino methyl) 5- (1-4 methoxy phenyl)-1,3,4-oxadiazol-2-thone; 3-(3, 4-Dichlorophenyl amino methyl) -5-(2-4-dichlorophenoxy methyl) -1, 3,4-oxadiazol-2-thione; Bis (5-p-methoxy phenyl-1,3,4-oxadiazolyl-2) disulphide, 5-p-methoxy phenyl-2-mercapto 1,3,4-thiadiazole were tested for fungitoxicity against Aspergillus flavus LK., A. fumigatus (Eidam) Wint., A. parasiticus Speare, Cladosporium oxysporum Bark and Curt, **Fusarium** moniliforme Sheldon and Penicillium citrinum Thom at one per cent concentration. Compound 3-(3,4 Dimethyl amino methyl-4-methoxyphenyl)-1, 3,4-oxidiazole-2 thione was **non-toxic** to moong plants (Phaseolus aureus Roxb.). It also checked the appearance of fungi on the seeds in storage.

L8 ANSWER 10 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1990:1768 BIOSIS
DOCUMENT NUMBER: BA89:1768
TITLE: INHIBITORY EFFECTS OF CERTAIN TRICHOTHECENES CYCLOPIAZONIC ACID AND CITREOVIRIDIN ON TETRAHYMENA-PYRIFORMIS.
AUTHOR(S): NISHIE K; COLE R J; DORNER J W

CORPORATE SOURCE: TOXICOL. MYCOTOXINS RES. UNIT, USDA-ARS-RUSSELL RES. CENTER, P.O. BOX 5677, ATHENS, GA 30613.
SOURCE: IN VITRO TOXICOL, (**1988-1989**) 2 (4), 239-248. CODEN: IVTOE4. ISSN: 0888-319X.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Mycotoxins produced by the fungi **Fusarium** (diacetoxyscirpenol [DAS], T-2 toxin, 15-acetoxyscirpenol [15AS], HT-2, vomitoxin, 3'-hydroxy-HT-2), Trichoderma (trichodermin), Myrothecium (verrucarin A, roridin A) and Penicillium (cyclopiazonic acid [CPA], citreoviridin [CIT] were tested for their toxicity on Tetrahymena pyriformis. The toxicity was assessed by determining the mycotoxin dose which decreased the protozoan count by 50% (ID50) in 24h, compared to controls. The ID50 values of this set of mycotoxins ranged from 0.013 to 22.5 .mu.g/ml. The order of toxicity was as follows: verrucarin A > DAS > T-2 toxin > roridin A > 15AS > trichodermin > HT-2 > vomitoxin > neosolaniol > 3'-OH-HT-2 > CPA > CIT. Trichothecenes' toxicity partly depended upon the chemical substituent at C8 position of the molecule, thus, in order of their toxic potential, the substituents were: H > isovaleryl > OH (e.g., DAS with H at C8 > T-2 with isovaleryl at C8 > neosolaniol with OH at C8 position; 15AS with H at C8 > HT-2 with isovaleryl group at C8 position). The population densities of Tetrahymena cultures exposed to mycotoxins for 24 h were inversely related to doses, and the pH's of these cultures were directly related to doses. Compared to trichothecenes, CPA and CIT were relatively **non-toxic** to the protozoan although both are known to be toxic to mammalians.

L8 ANSWER 11 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1988:76838 BIOSIS
DOCUMENT NUMBER: BA85:43137
TITLE: SECONDARY METABOLITES FROM FUSARIUM TWO NEW MODIFIED TRICHOTHECENES FROM FUSARIUM-SPOROTRICHIOIDES MC-72083.
AUTHOR(S): CORLEY D G; ROTTINGHAUS G E; TEMPESTA M S
CORPORATE SOURCE: DEP. CHEM., UNIV. MO., COLUMBIA, MO. 65211.
SOURCE: J NAT PROD (LLOYDIA), (1987) 50 (5), 897-902. CODEN: JNPRDF. ISSN: 0163-3864.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Two new, relatively **non-toxic**, secondary metabolites characterized as 8.alpha.- and 8.beta.-hydroxysambucoin [1] and [2], isolated from the toxigenic fungus **Fusarium** sporotrichoides MC-72083 are reported. The structural assignments were established by spectral data with 1H-nmr studies (COSY, dnOes) playing a key role in establishing the stereochemistry in 1 and 2. The isolation of 14 known trichothecenes produced by this fungus is also discussed.

L8 ANSWER 12 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1988:54310 BIOSIS
DOCUMENT NUMBER: BA85:31169
TITLE: IN-VITRO SELECTION FOR FUSARIC ACID RESISTANT BARLEY PLANTS.
AUTHOR(S): CHAWLA H S; WENZEL G
CORPORATE SOURCE: PLANT BREEDING DEP., G.B. PANT UNIV., PANTNAGAR 263145, INDIA.
SOURCE: PLANT BREEDING, (1987) 99 (2), 159-163. CODEN: PLABED.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Calli of two genotypes of barley [Hordeum vulgare] 'Dissa' and W 193, were used for selection of resistance against **fusaric** acid, a pathotoxin of **Fusarium**. Callus was initiated from 7- to 10 days old immature embryos. 1000 calli of the 'Dissa' and 500 of the W 193 genotypes were grown for 4 selection cycles on medium with 0.8 mM **fusaric** acid. In the first selection cycle, about 80% of the calli were killed; after the 4 selection cycles, 8 to 11% resistant calli were obtained and plants were regenerated. Resistant calli maintained on **non-toxic** medium showed retention of resistance ability after 3 months of sub-culturing. Plants could be regenerated from the surviving calli and testing by leaf bioassay revealed that many were resistant to the same toxin concentration employed for callus selection (100%), while some were only resistant up to a concentration of 75%.

L8 ANSWER 13 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1986:256060 BIOSIS
DOCUMENT NUMBER: BA82:10809
TITLE: MONILIFORMIN PRODUCTION IN FUSARIUM SECTION LISEOLA.
AUTHOR(S): MARASAS W F O; THIEL P G; RABIE C J; NELSON P E; TOUSSOUN T

A
CORPORATE SOURCE: NATL. RES. INST. NUTR. DIS., SOUTH AFRICAN MED. RES. COUNCIL, P.O. BOX 70, TYGERBERG 7505, S. AFR.
SOURCE: MYCOLOGIA, (1986) 78 (2), 242-247. CODEN: MYCOAE. ISSN: 0027-5514.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB **Fusarium** cultures belonging to section Liseola were grown on corn, tested for toxicity to ducklings and the toxic strains analyzed for moniliformin content. The only existing culture of F. annulatum was **non-toxic** and did not produce moniliformin. The 149 cultures examined represented F. moniliforme, F. proliferatum, F. subglutinans, F. anthophilum, F. succisae and a sixth taxon of uncertain identify isolated from rice with Barkanae disease. The single toxic isolate of F. succisae did not produce moniliformin. The five other taxa all contained at least some moniliformin-producing strains, but differed in the percentage of strains that produced moniliformin as well as the amounts produced. Moniliformin production by F. proliferatum and F. anthophilum is reported for the first time.

L8 ANSWER 14 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1985:410554 BIOSIS
DOCUMENT NUMBER: BA80:80546
TITLE: SOLAR-HEATING SOIL FOR CONTROL OF DAMPING-OFF DISEASES.
AUTHOR(S): KASSABY F Y
CORPORATE SOURCE: DEPARTMENT CONSERVATION, FORESTS AND LANDS, 601 BOURKE STREET, MELBOURNE, G.P.O. BOX 4018, MELBOURNE, VICTORIA 3001, AUSTRALIA.
SOURCE: SOIL BIOL BIOCHEM, (1985) 17 (4), 429-434. CODEN: SBIOAH. ISSN: 0038-0717.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB Solar-heating (45-52.degree. C) moist soil under 50 .mu.m thick clear plastic sheeting during summer (Jan.-Feb.) significantly reduced pre-emergence damping-off disease of Pinus radiata D. Don (radiata pine) and Eucalpytus obliqua L'Herit (messmate and stringybark) seed, and also post-emergence mortality among P. radiata seedlings. Phytophthora cinnamomi Rands, **Fusarium** oxysporum Snyder and Hansen, and Pythium sp. could not be re-isolated from artificially inoculated pine roots after exposure to the solar-heating treatment. Natural infectious propagules of P. cinnamomi were also undetectable in solar-heated soil for up to 16 mo. following treatment, though infectious propagules of Pythium were detected at low level. The treatment also controlled 11 weed species. Solar-heating a potting mixture temporarily suppressed disease incidence in nursery stock, possibly due to an increase in antagonistic microorganisms. Solar-heating moist soil appears to be particularly attractive in forest nursery practice, as it provides a simple, effective, **non-toxic** and non-polluting technique for control of soil-borne diseases and weed species.

L8 ANSWER 15 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1984:326017 BIOSIS
DOCUMENT NUMBER: BA78:62497
TITLE: INCREASED INHIBITORY EFFECT OF CATION AS A CLAY COMPLEX ON FUNGI.
AUTHOR(S): HADAR Y; BANIN A; CHET I
CORPORATE SOURCE: HEBREW UNIV. JERUSALEM, FAC. AGRIC., REHOVOT, ISR.
SOURCE: WATER AIR SOIL POLLUT, (1984) 22 (4), 441-446. CODEN: WAPLAC. ISSN: 0049-6979.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB The toxic effect of Ni, Cu, Ag, Cd and Zn adsorbed to clay minerals on 6 fungal spp. [Sclerotium rolfsii, Rhizoctonia solani, Pythium sp., Alternaria tenuis, **Fusarium** oxysporum, Aspergillus niger] was studied. In some cases the ions adsorbed to the clay were more effective as growth inhibitors than those in solution. This phenomenon was especially prominent with Cu and Ag. Though Ca was **non-toxic** to the fungi, Ca-clay complexes inhibited fungal growth. Clay may inhibit fungi through adsorptive effects when the cation is **non-toxic** and through direct heavy metal toxicity.

L8 ANSWER 16 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1984:239399 BIOSIS
DOCUMENT NUMBER: BA77:72383
TITLE: SELECTION FOR HIGHER SEED YIELD IN THE PRESENCE OF THE DELETERIOUS LOW ALKALOID ALLELE IUCUNDUS IN LUPINUS-ANGUSTIFOLIUS.

AUTHOR(S): ORAM R N
CORPORATE SOURCE: CSIRO, DIVISION OF PLANT INDUSTRY, P.O. BOX 1600, CANBERRA CITY, A.C.T. 2601, AUSTRALIA.
SOURCE: FIELD CROPS RES, (1983) 7 (3), 169-180. CODEN: FCREDZ.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB The recessive allele at the iucundus locus (iuc), which reduces the alkaloid content of the seeds of narrow-leafed lupine sufficiently to render them palatable and **non-toxic** to monogastric animals, also reduces seed yield by 30% on fertile solids in southeastern Australia. The reduction was relatively constant in each of 20 trials conducted at 1 or both of 2 sites in each of 10 yr. Yield was not affected by recessivity at the leucospermus flower and testa color locus, nor by the interaction between these 2 loci. Comparisons between largely isogenic genotypes indicated that the quinolizidine alkaloids in wild-type lupine plants enable then to produce more seeds than low alkaloid plants under many deleterious environmental conditions, including hot dry conditions during seed development, frosts during the early flowering period, drought during the pre- and post-flowering phases and **Fusarium** root rot attack during winter. High alkaloid plants also were found to be less affected by the brown leaf spot fungus, Pleiochaeta setosa (Kirchn.) Hughes, and were higher yielding on an acid soil containing toxic levels of available Mn and Al. If the alkaloids have many protective and yield-promoting functions, alternative low alkaloid alleles at the iuc or other loci would not improve yields. Supporting this hypothesis is the observation that 2 newly-induced low alkaloid mutations, both allelic with iuc, were low yielding. Nevertheless, yield improvement has been achieved in iuc homozygotes. This apparently results, at least in part, from the accumulation of alternative genetic protective systems.

L8 ANSWER 17 OF 17 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1983:247656 BIOSIS
DOCUMENT NUMBER: BA76:5148
TITLE: COMPARATIVE FUNGI TOXICITY OF THE INSECTICIDE PERMETHRIN AND 10 DEGRADATION PRODUCTS.
AUTHOR(S): STRATTON G W; CORKE C T
CORPORATE SOURCE: DEP. BIOL., NOVA SCOTIA AGRIC. COLL., TRURO, NOVA SCOTIA, CAN. B2N 5E3.
SOURCE: PESTIC SCI, (**1982 (RECD 1983)**) 13 (6), 679-685. CODEN: PSSCBG. ISSN: 0031-613X.
FILE SEGMENT: BA; OLD
LANGUAGE: English

AB The toxic effects of permethrin and 10 of its degradation products on the growth of 10 fungi [Arthrobotrys botryospora, Bipolaris sorokiniana, Botrytis allii, **Fusarium** oxysporum f. sp. lycopersici, Pestalotia sp., Trichoderma viride, Pythium ultimum, Mucor sp., Polyporus hirsutus and Sclerotinia homeocarpa] were determined. Permethrin was relatively **non-toxic**, with an EC50 of > 100 mg/l but 6 of the degradation products were significantly (P = 0.05) more inhibitory. The ester hydrolysis products, 3-phenoxybenzyl alcohol and 3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylic acid, had EC50 [median effective concentratoin] values ranging from 8 to > 100 and 20 to > 50 mg per liter, respectively. Other degradation products that were more toxic than permethrin included 3-phenoxybenzaldehyde and 3-phenoxybenzoic acid, with EC50 values as low as < 1 mg/l. Hydroxylated and substituted-benzene metabolites were **non-toxic**. Combinations of selected test compounds yielded both synergistic, antagonistic and additive interaction responses, depending upon the test system employed.

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L1            3 "NRRL 26139"

=> d 1-3

L1   ANSWER 1 OF 3        GENBANK.RTM.  COPYRIGHT 2002

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SEQUENCE LENGTH (SQL):  583
MOLECULE TYPE (CI):       DNA; linear
DIVISION CODE (CI):       Plants, fungi, algae
DATE (DATE):              18 Mar 1998
DEFINITION (DEF):         Fusarium venenatum beta-tubulin gene, partial cds.
SOURCE:                   Fusarium venenatum.
 ORGANISM (ORGN):         Fusarium venenatum
                          Eukaryota; Fungi; Ascomycota; Pezizomycotina;
                          Sordariomycetes; Hypocreales; mitosporic Hypocreales;
                          Fusarium
NUCLEIC ACID COUNT (NA): 120 a   170 c   135 g   158 t
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   AUTHOR (AU):           O'Donnell,K.; Cigelnik,E.; Casper,H.H.
   TITLE (TI):            Molecular phylogenetic, morphological, and mycotoxin
                          data support reidentification of the Quorn mycoprotein
                          fungus as Fusarium venenatum
   JOURNAL (SO):          Fungal Genet. Biol., 23 (1), 57-67 (1998)
   OTHER SOURCE (OS):     CA 128:280717
REFERENCE:                2  (bases 1 to 583)
   AUTHOR (AU):           O'Donnell,K.; Cigelnik,E.
   TITLE (TI):            Direct Submission
   JOURNAL (SO):          Submitted (02-JUN-1997) USDA/ARS/NCAUR, 1815 N.
                          University, Peoria, IL 61604, USA

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exon            282..404                /number=3
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   241 cttccatctc gcccgaggga gatgctaaca atgtttatta gggtaaccaa atcggtgctg
   301 ctttctggca gaccatctct ggcgagcacg gtctcgacag caatggtgtt tacagcggta
   361 cctccgagct ccagctcgag cgtatgagcg tttacttcaa cgaggtttgt ttcatcactc
   421 ctgccacgaa aaacacaagc tcacgtgtgt aggcctctgg taacaagtat gttccccgtg
   481 ccgtcctcgt cgatctcgag cccggtacca tggacgccgt ccgtgccggt cccttcggac
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L1   ANSWER 2 OF 3        GENBANK.RTM.  COPYRIGHT 2002

LOCUS (LOC):            AF006357     GenBank (R)
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CAS REGISTRY NO. (RN):  385241-04-3
SEQUENCE LENGTH (SQL):  515
MOLECULE TYPE (CI):     DNA; linear
DIVISION CODE (CI):     Plants, fungi, algae
DATE (DATE):            12 Mar 1998
DEFINITION (DEF):       Fusarium venenatum NRRL 26139
                        internal transcribed spacer 1, 5.8S ribosomal RNA gene;
                        and internal transcribed spacer 2, complete sequence.
SOURCE:                 Fusarium venenatum.
 ORGANISM (ORGN):       Fusarium venenatum
                        Eukaryota; Fungi; Ascomycota; Pezizomycotina;
                        Sordariomycetes; Hypocreales; mitosporic Hypocreales;
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REFERENCE:              1  (bases 1 to 515)
   AUTHOR (AU):         O'Donnell,K.; Cigelnik,E.; Casper,H.H.
   TITLE (TI):          Molecular phylogenetic, morphological, and mycotoxin
                        data support reidentification of the Quorn mycoprotein
                        fungus as Fusarium venenatum
   JOURNAL (SO):        Fungal Genet. Biol., 23 (1), 57-67 (1998)
   OTHER SOURCE (OS):   CA 128:280717
REFERENCE:              2  (bases 1 to 515)
   AUTHOR (AU):         O'Donnell,K.; Cigelnik,E.
   TITLE (TI):          Direct Submission
   JOURNAL (SO):        Submitted (02-JUN-1997) USDA/ARS/NCAUR, 1815 N.
                        University, Peoria, IL 61604, USA

FEATURES (FEAT):
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L1   ANSWER 3 OF 3        GENBANK.RTM.  COPYRIGHT 2002

LOCUS (LOC):            AF006337     GenBank (R)
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GenBank ACC. NO. (GBN): AF006337
CAS REGISTRY NO. (RN): 385220-31-5
SEQUENCE LENGTH (SQL): 535
MOLECULE TYPE (CI): DNA; linear
DIVISION CODE (CI): Plants, fungi, algae
DATE (DATE): 12 Mar 1998
DEFINITION (DEF): Fusarium venenatum 28S ribosomal RNA gene, partial sequence.
SOURCE: Fusarium venenatum.
ORGANISM (ORGN): Fusarium venenatum
Eukaryota; Fungi; Ascomycota; Pezizomycotina; Sordariomycetes; Hypocreales; mitosporic Hypocreales; Fusarium
NUCLEIC ACID COUNT (NA): 133 a 110 c 158 g 134 t
REFERENCE: 1 (bases 1 to 535)
AUTHOR (AU): O'Donnell,K.; Cigelnik,E.; Casper,H.H.
TITLE (TI): Molecular phylogenetic, morphological, and mycotoxin data support reidentification of the Quorn mycoprotein fungus as Fusarium venenatum
JOURNAL (SO): Fungal Genet. Biol., 23 (1), 57-67 (1998)
OTHER SOURCE (OS): CA 128:280717
REFERENCE: 2 (bases 1 to 535)
AUTHOR (AU): O'Donnell,K.; Cigelnik,E.; Casper,H.H.
TITLE (TI): Direct Submission
JOURNAL (SO): Submitted (29-MAY-1997) USDA/ARS/NCAUR, 1815 N. University, Peoria, IL 61604, USA

FEATURES (FEAT):

Feature Key	Location	Qualifier
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=> s"ATCC 60879"
S"ATCC IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s "ATCC 60879"
  27 FILES SEARCHED...
  44 FILES SEARCHED...
L2           0 "ATCC 60879"
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